

**Artificial Intelligent (AI) and Game Design:  
Make My Ogre Smart**

Project Website: <http://grid.cs.gsu.edu/~gamedev/>

Andre Kenneth "Chase" Randall  
Honors College, Department of Computer Science (Undergraduate), Georgia State  
University, Atlanta, GA 30302

The purpose of this paper to prepare a literature review on machine learning procedures through game design. Enough work exists to verify that improving machine learning procedures enhance the game playing experience. Starting with CSC 4780 and ending with CSC 4880, the project spans across two academic semesters. In the first semester, we explore the machine learning procedures for the fighting and general intelligence of monsters in a game; however, we first must explore character development, rules of the game, and graphic layout among other gaming elements known yet unspecified. The second semester produces an analytical paper for publication purposes. In the end, the machine learning procedures apply to many other situations beyond game design.

**Keywords:** Machine Learning, AI, Game Design, Neural Network, Back propagation, Finite State Machine, A

**Acknowledgements:** NSF Award No. [1305041](#)